

REMARKS

In the Office Action dated January 13, 2005, the Examiner rejected claims 27-47 under 35 U.S.C. §102(b) as being anticipated by a publication entitled “Channel Routing in Manhattan-Diagonal Model,” IEEE, 1995, pp. 43-48 by Das, et al., (“Das”). In this Response, Applicants have not added or canceled any claim. Accordingly, claims 27-47 remain pending in the application after entry of this Amendment.

I. Rejection of claims 27-45 under 35 U.S.C. §102(b)

In the Office Action, the Examiner rejected claims 27-47 under §102(b) as being anticipated by Das. Claims 28-45 are dependent directly or indirectly on independent claim 27. Claim 27 recites a method and apparatus for pre-tabulating routes for nets in a region of an integrated circuit (“IC”) layout. The method defines a set of partitioning lines before routing, for partitioning the region into a plurality of sub-regions during a routing operation. For a set of potential sub-regions, it identifies a set of routes that traverse the potential set of sub-regions, where at least one of the routes has at least one diagonal edge. It then stores the identified routes.

Applicants respectfully submit that Das does not disclose, teach, or even suggest such a method. Das describes a detailed channel routing method that divides a layout into sets of columns and rows of routing channels. See Das, pp. 43, column 1, second paragraph. As such, Das does not describe a method that pre-tabulates routes by:

- defining a set of partitioning lines for partitioning the region into a plurality of sub-regions during a routing operation;
- for a set of potential sub-regions, identifying a set of routes that traverse the potential set of sub-regions, where at least one of the routes has at least one diagonal edge; and
- storing the identified routes.

Accordingly, Applicants respectfully submit that Das does not render claim 27 unpatentable. As Claims 28-45 are dependent on claim 27, Applicants respectfully submit that claims 25-45 are patentable over Das for at least the reasons that were discussed above in relation to claim 27.

II. Rejection of claims 46 and 47 under 35 U.S.C. §102(b)

In the Office Action, the Examiner rejected claims 46 and 47 under §102(b) as being anticipated by Das. Like claim 27, claims 46 and 47 recite methods that before routing operations pre-computes routes that are then used in the routing operations. As mentioned above, Das does not disclose, teach, or even suggest such a method, as Das simply discloses a detailed channel router. Accordingly, Applicants respectfully submit that Das does not render claims 46 and 47 unpatentable. In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the §102(b) rejection of claims 27 - 47.

CONCLUSION

In view of the foregoing, it is submitted that all pending claims, namely claims 27-47, are in condition for allowance. Reconsideration of the rejections is requested. Allowance is earnestly solicited at the earliest possible date.

Respectfully submitted,
STATTLER, JOHANSEN & ADELI LLP

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Mani Adeli
Reg. No. 39,585

Stattler, Johansen & Adeli LLP
1875 Century Park East, Suite 1050
Los Angeles, CA 90067
Phone: (310) 785-0140 x301
Fax: (310) 785-9558